

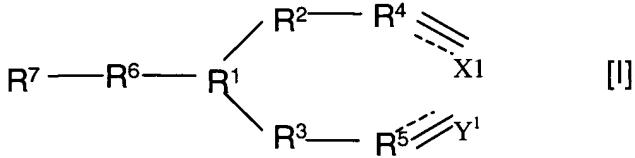
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-42. Canceled

43. (Currently Amended) A method of adhering or sealing at least one surface said method comprising

(1) applying to at least one surface, a compound of formula (I)



where R¹ is selected from a heteroatom or a substituted heteroatom which has electron withdrawing properties and R⁶ is a bond or -C(O)-, -C(O)O-, -OC(O)-, C(S) or -S(O)₂-; R² and R³ are independently selected from (CR^{8'}R⁸)_n, or a group CR⁹R¹⁰, -(CR^{8'}R⁸CR⁹R¹⁰)- or -(CR⁹R¹⁰CR^{8'}R⁸)- where n is 0, 1 or 2, R^{8'} and R⁸ are independently selected from hydrogen or alkyl, and either one of R⁹ or R¹⁰ is hydrogen and the other is an electron withdrawing group, or R⁹ and R¹⁰ together form an electron withdrawing group, R⁴ and R⁵ are independently selected from C, CH or CR¹¹ where R¹¹ is an electron withdrawing group, and R⁷ is selected from hydrogen, an optionally substituted hydrocarbyl group, a perhaloalkyl group or a functional group;

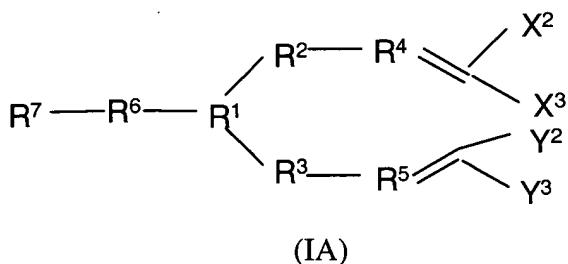
the dotted lines indicate the presence or absence of a bond, and X^1 is a group CX^2X^3 where the dotted line bond to which it is attached is absent and a group CX^2 where the dotted line bond to which it is attached is present, Y^1 is a group CY^2Y^3 where the dotted line bond to which it is attached is absent and a group CY^2 where the dotted line bond to which it is attached is present, and X^2 , X^3 , Y^2 and Y^3 are independently selected from hydrogen and fluorine; provided that

- i) at least one of (a) R^1 and R^6 or (b) R^2 and R^3 or (c) R^4 and R^5 includes an electron withdrawing group;
- ii) where R^2 and R^3 are both CH_2 , R^4 and R^5 are both CH , and R^1 is N , R^6 may not be selected from $C(O)$ or $-OC(O)-$;

and optionally a polymerisation initiator, and

(2) allowing the compounds of formula (I) to polymerize in contact with said at least one surface to seal said surface and optionally a further surface such that the said at least one surface and said optional further surface are adhered or sealed together.

44. (Previously Presented) A method according to claim 43 wherein the compound of formula (I) is a compound of formula (IA)



where R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , X^2 , X^3 , Y^2 and Y^3 are as defined in claim 43.

45. (Previously Presented) A method according to claim 43 wherein the compound of formula (I) is polymerised under the influence of radiation or an electron beam or by reaction with a chemical initiator.

46. A method according to claim 45 wherein the compound of formula (I) is polymerisable under the influence of ultra violet or thermal radiation.

47. (Previously Presented) A method according to claim 46 which comprises a polymerisation initiator which is a photoinitiator.

48. (Previously Presented) A method according to claim 43 wherein in the compound of formula (I), R² and R³ are groups (CR⁸R⁸)_n and R⁴ and R⁵ are CH groups.

49. (Previously Presented) A method according to claim 43 where R¹ is selected from nitrogen, N⁺R¹²(Z^{m-})_{1/m}, S(O)_pR¹³, B, or P(O)_qR¹⁴ where R¹², R¹³ and R¹⁴ are independently selected from hydrogen or hydrocarbyl, Z is an anion of valency m, p is 0, 1 or 2, and q is 0, 1, 2 or 3.

50. (Previously Presented) A method according to claim 49 where R¹ is a N⁺R¹²(Z^{m-})_{1/m} group.

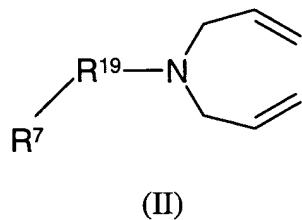
51. (Previously Presented) A method according to claim 49 where Z is halogen.

52. (Previously Presented) A method according to claim 49 where R¹² is alkyl.

53. (Previously Presented) A method according to claim 43 where R⁶ is a group -C(O)O- or -OC(O)-.

54. (Previously Presented) A method according to claim 43 wherein R¹ is nitrogen, R⁶ is -C(O)-, -C(S)- or -S(O)₂-.

55. (Previously Presented) A method according to claim 43 where the compound of formula (I) is a compound of structure (II)



where R^7 is as defined in claim 43 and $-R^{19}-$ is $C(S)$ or $S(O)_2$.

56. (Previously Presented) A method according to claim 43 where R^2 and R^3 include an electron withdrawing group.

57. (Previously Presented) A method according to claim 56 where at least one of R^2 or R^3 include electron withdrawing groups R^9 and R^{10} .

58. (Previously Presented) A method according to claim 57 wherein R^9 and R^{10} together form an oxo group.

59. (Previously Presented) A method according to claim 43 wherein R^7 comprises a hydrocarbyl group optionally substituted by a functional group.

60. (Previously Presented) A method according to claim 43 wherein R^7 includes an unsaturated moiety.

61. (Previously Presented) A method according to claim 60 wherein the unsaturated moiety is an aryl or alkenyl group, or a carbonyl substituent.

62. (Previously Presented) A method according to claim 59 wherein R^7 is an optionally substituted alkyl, alkenyl, alkynyl or aryl group.

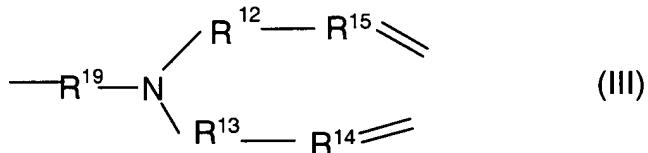
63. (Previously Presented) A method according to claim 62 wherein R^7 is substituted by halogen, carboxy or salts thereof or acyloxy.

64. (Previously Presented) A method according to claim 59 where R⁷ is a perhaloalkyl group which comprises from 1 to 3 carbon atoms.

65. (Previously Presented) A method according to claim 64 where R⁷ is a perhalomethyl group.

66. (Previously Presented) A method according to claim 59 where R⁷ is a dialkenyl substituted amide.

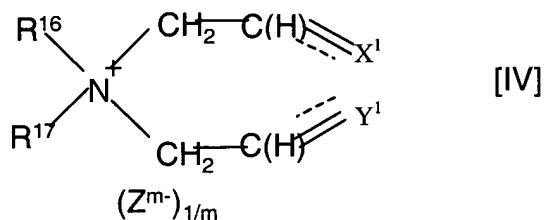
67. (Currently Amended) A method according to claim 66 wherein the amide is of sub formula (III)



where R¹⁹ is C(s) or S(O)₂C(S) or S(O)₂, R¹² and R¹³ are selected from groups defined above for R² and R³ in relation to formula (I) and R¹⁴ and R¹⁵ are selected from groups defined above as R³ and R⁴ in relation to formula (I).

68. (Previously Presented) A method according to claim 67 where R¹² and R¹³ are -CH₂- or -CH₂CH₂- groups and R¹⁴ and R¹⁵ are -CH- groups.

69. (Previously Presented) A method according to claim 43 wherein the compound of formula (I) is a compound of formula (IV)



where Z is an anion of valency m, the hydrogen atoms in bracket are absent when the dotted lines represent the presence of a bond, and R¹⁶ and R¹⁷ are independently selected from hydrogen and hydrocarbyl optionally substituted with hydroxy.

70. (Previously Presented) A method according to claim 69 wherein R¹⁶ and R¹⁷ are selected from alkyl, hydroxyalkyl and alkenyl.

71. (Previously Presented) A method according to claim 70 wherein R¹⁶ and R¹⁷ are prop-2-enyl or hydroxyalkyl.

72. (Previously Presented) A method according to claim 71 wherein hydroxyalkyl is a group of formula -C((CH₂)_dOH)_a(H)_b where a is an integer of from 1 to 3 and b is O or an integer of 1 or 2 provided that a+b is 3, and d is an integer of from 1 to 6.

73. (Previously Presented) An article which includes at least two surfaces which are adhered together by means of a compound of formula (I) as defined in claim 43 which has been polymerised.

74. (Previously Presented) An article according to claim 73 wherein the surfaces comprise glass or metal surfaces or a mixture of these.

75. (Previously Presented) An article according to claim 73 wherein the polymerised compound of formula (I) provides an electrically conducting layer.

76. (Previously Presented) A biomedical adhesive which comprises a biocompatible compound of formula (I) as defined in claim 43.

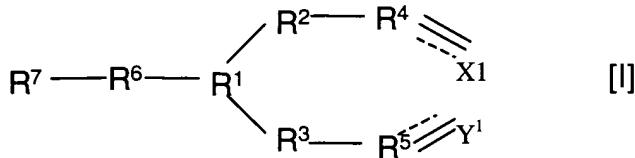
77. (Previously Presented) A sealant which comprises a compound of formula (I) as defined in claim 43.

78. (Previously Presented) A sealant which comprises a biocompatible compound of formula (I) as defined in claim 43.

79. (New) A method according to claim 48 wherein R⁸ and R^{8'} are both alkyl groups.

80. (New) A method of adhering or sealing at least one surface said method comprising

(1) applying to at least one surface, a compound of formula (I)



where R¹ is selected from N⁺R¹²(Z^{m-})_{1/m}, S(O)_pR¹³, B, or P(O)_qR¹⁴ where R¹², R¹³ and R¹⁴ are independently selected from hydrogen or hydrocarbyl, Z is an anion of valency m, p is 0, 1 or 2, and q is 0, 1, 2 or 3 and R⁶ is a bond or -C(O)-, -C(O)O-, -OC(O)-, C(S) or -S(O)₂-;

or

R¹ is selected from nitrogen, and R⁶ is a bond or -C(O)O- or -C(S)- or -S(O)₂-;

R² and R³ are independently selected from (CR^{8'}R⁸)_n, or a group CR⁹R¹⁰, -(CR^{8'}R⁸CR⁹R¹⁰)- or -(CR⁹R¹⁰CR^{8'}R⁸)- where n is 0, 1 or 2, R^{8'} and R⁸ are independently selected from hydrogen or alkyl, and either one of R⁹ or R¹⁰ is hydrogen and the other is an electron withdrawing group, or R⁹ and R¹⁰ together form an electron withdrawing group,

R⁴ and R⁵ are independently selected from C, CH or CR¹¹ where R¹¹ is an electron withdrawing group, and

R⁷ is selected from hydrogen, an optionally substituted hydrocarbyl group, a perhaloalkyl group or a functional group;

the dotted lines indicate the presence or absence of a bond, and X¹ is a group CX²X³ where the dotted line bond to which it is attached is absent and a group CX² where the dotted line bond to

which it is attached is present, Y^1 is a group CY^2Y^3 where the dotted line bond to which it is attached is absent and a group CY^2 where the dotted line bond to which it is attached is present, and X^2 , X^3 , Y^2 and Y^3 are independently selected from hydrogen and fluorine; provided that

- i) at least one of (a) R^1 and R^6 or (b) R^2 and R^3 or (c) R^4 and R^5 includes an electron withdrawing group;
- ii) where R^2 and R^3 are both CH_2 , R^4 and R^5 are both CH , and R^1 is N , R^6 may not be selected from $C(O)$ or $-OC(O)-$;

and optionally a polymerisation initiator, and

(2) allowing the compounds of formula (I) to polymerize in contact with said at least one surface to seal said surface and optionally a further surface such that the said at least one surface and said optional further surface are adhered or sealed together.